

San Joaquin Valley Unified Air Pollution Control District

PERMIT UNIT: C-447-3-1

EXPIRATION DATE: 6/30/2000

EQUIPMENT DESCRIPTION:

75.0 MMBTU/HR BIGELOW BOILER, S/N 12722, EQUIPPED WITH TODD LOW-NOX BURNER, FLUE GAS RECIRCULATION, O2 AND CO TRIM CONTROLLERS.

Permit Unit Requirements

1. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. Unit shall be fired on PUC-regulated natural gas or on diesel fuel not exceeding 0.5% sulfur by weight. [District Rule 4301, 5.2.1 and County Rules 404 (Madera), 406 (Fresno), and 407 (The six remaining SJVUAPCD counties and 40 CFR 60.42c(d))] Federally Enforceable Through Title V Permit
3. Nitrogen oxide (NOX) emissions shall not exceed: A.) 0.036 lb NOX/MMBtu or 30 ppmv when operated on gaseous fuel fired boilers and steam generators. B.) 0.052 lb NOX/MMBtu or 40 ppmv when operated on liquid fuel fired boilers and steam generators. C.) Lower NOX limit of the two fuels being fired simultaneously for dual fired units. [District Rule 4351, 5.2.2 and 5.4 and/or District Rule 4305, 5.1 and the subsumed District Rule 4301, County Rule 405 (Madera) and County Rule 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin)] Federally Enforceable Through Title V Permit
4. NOX requirements shall not apply during natural gas curtailments to units burning liquid fuel that are normally fired with gaseous fuel. This exemption is limited to 336 cumulative hours of operation per calendar year excluding equipment testing not to exceed 48 hours per calendar year. Any unit so exempted shall monitor and record for each unit the cumulative annual hours of operation on each liquid during curtailment and during testing. [District Rule 4305, 4.2 & 6.1.1 and/or District Rule 4351, 4.2 & 6.1.2] Federally Enforceable Through Title V Permit
5. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081. [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified diesel fuel, then the sulfur content of the fuel being fired in the unit shall be determined using ASTM method D 1072-80, D 3031-81, D 4084-82 or D 3246-81. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels; ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

8. Operator shall perform annual source testing for NOX (ppmv) according to EPA Method 7E (or ARB Method 100), stack gas oxygen by EPA Method 3 or 3A (or ARB Method 100), NOX emission rate (heat input basis) by EPA Method 19, stack gas velocities by EPA Method 2, and stack gas moisture content by EPA Method 4. Gaseous fired units shall test not less than once every 36 months, if compliance is shown for 2 consecutive years. Test results submitted to the District from individual units that are identical to a group of units, in terms of rated capacity, operational conditions, fuel used, and control method, may satisfy these requirements. [District Rule 4305, 6.2.2, 6.2.4-7 and 4351, 6.2.2 & 6.2.4-7, & 6.3] Federally Enforceable Through Title V Permit

9. Nitrogen oxide (Nox) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O₂ and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rule 4305, 8.1 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified diesel fuel, the sulfur content of each fuel source shall be tested weekly, except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. Operator of units simultaneously firing gaseous and liquid fuels shall install and maintain totalizing mass or volumetric flow rate meters in each fuel line to each unit. Volumetric flow rate meters shall be installed in conjunction with temperature and pressure measurement devices. [District Rule 4305, 5.3.1 and District Rule 4351, 5.6.1] Federally Enforceable Through Title V Permit

12. Operator shall monitor and record for each unit the hhv and cumulative annual use of each fuel. [District Rule 4305, 6.1.1 and District Rule 4351, 6.1.1] Federally Enforceable Through Title V Permit

13. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain all records for at least five years and conform to the recordkeeping requirements described in District Rule 2520. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), Rule 408 (Fresno), Rule 408.2 (Merced) and 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin); Rule 402(Madera) and 404 (all seven remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4301. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

18. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. All equipment shall be constructed, maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [NSR] Federally Enforceable Through Title V Permit

21. Records of daily natural gas consumption shall be maintained on the premises. [NSR; District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

22. Natural gas fuel usage shall not exceed 1,353,000 scf per day. [NSR] Federally Enforceable Through Title V Permit

23. Emissions shall not exceed 0.036 lb NO_x/MMBtu or 0.148 lb CO/MMBtu. [NSR] Federally Enforceable Through Title V Permit

24. Daily emissions while firing on natural gas shall not exceed 64.8 lb Nox, 266.4 lb CO, 4.8 lb NMHC, nor 4.3 lb PM-10. [NSR] Federally Enforceable Through Title V Permit

25. The operator shall perform annual source testing for CO according to EPA Method 10 or ARB Method 100. If compliance is shown for 2 consecutive years, gaseous fired units shall test not less than once every 36 months. Test results submitted to the District from individual units that are identical to a group of units may satisfy these requirements. [District Rule 1081; District Rule 2520, 9.4.2; District Rule 4305, 6.2.3 and 6.3] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with Nox limits of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required Nox emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to demonstrate compliance for Nox limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.4.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested to demonstrate compliance for Nox limits of this permit shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the

group including all preventative and corrective maintenance work done. [District Rules 2520, 9.4.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested to demonstrate compliance for Nox limits of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fueltype (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.4.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. The number of representative units source tested to demonstrate compliance for Nox limits shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit